

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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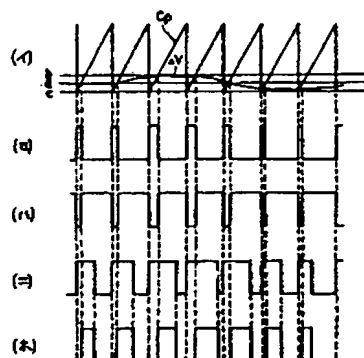
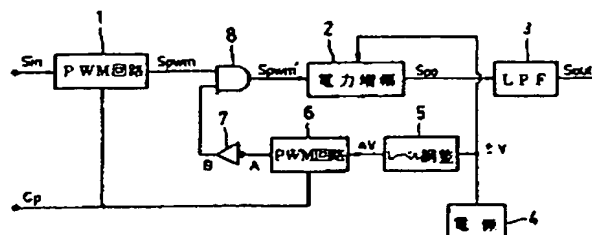
APPLICATION DATE : 31-07-84  
APPLICATION NUMBER : 59158987

APPLICANT : AKAI ELECTRIC CO LTD;

INVENTOR : ISHIKAWA TSUTOMU;

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TITLE : POWER SUPPLY VOLTAGE  
FLUCTUATION CORRECTING  
METHOD IN PULSE WIDTH  
MODULATION AMPLIFIER



ABSTRACT : PURPOSE: To eliminate output fluctuation due to power supply voltage fluctuation by detecting the fluctuation of a power supply voltage fed to a power amplifier circuit, converting the detected signal into a digital signal and using the digital signal so as to correct an input signal.

CONSTITUTION: When an input signal  $S_{in}$  is an analog signal, a level adjusting circuit 5 adjusts a level of a power supply voltage  $\pm V$  fed to a power amplifier circuit 2 from a power supply 4 and detects the fluctuation. That is, the level of a power supply voltage  $+V$  is decreased by a  $\Delta V$ , the power voltage is set to a level (a) when it is a specified voltage to a sawtooth reference pulse  $C_p$  so that the upper limit of the expected fluctuation is a level (b) and the lower limit is within a level (c), and the fluctuated voltage  $\Delta V$  is inputted to a pulse width modulation (PWM) circuit 6. The PWM circuit 6 applies the pulse width modulation to the fluctuated voltage  $\Delta V$  to convert it into a digital signal. That is, the fluctuated voltage  $\Delta V$  is compared with the reference pulse  $C_p$  to output a signal A of pulse width modulation waveform going to "H" only at  $\Delta V > C_p$ . The duty of the signal A is selected to 10% at, e.g., the specified voltage so as to attain level adjustment by the level adjusting circuit.

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